SHORT REPORT

Multi-disciplinary team approach in a teaching hospital: Challenges and opportunities

Muhammad Nouman Rafique, Muhammad Bilal Chishti, Muhammad Waris Farooka

Abstract

Conducting regular Multidisciplinary Team (MDT) meetings in a tertiary care unit without an oncology department, has posed significant challenges. In addition to that, the dearth of advanced technological applications poses a greater strain on the scarce resources. The Department of Surgery at the Services Hospital, Lahore, has been performing oncological surgeries for some time, but since there was no oncology department, it lacked the MDT approach, which is an essential component in the management of onco-surgeries. Realising the importance of MDT meetings, the Department of Surgery has been conducting MDT meetings for the past seven months, fortnightly and has discussed 118 surgical oncology cases to date. These include malignancies of breast, colorectal, hepatobiliary, upper GI, and other miscellaneous organs. These meetings have resulted in significant improvement in patient management—27.1% of the patients were offered neo-adjuvant therapy, 27.1% underwent upfront surgery, 5.1% received adjuvant therapy, 7.6% were referred for palliative care, and 24.6% were advised further workup. This article explores the global impact of the MDT approach on patient care and medical staff, at the Services Hospital. It also addresses implementation barriers and challenges faced during this phase.

Keywords: Patient care team, Neoplasm, Teaching hospital, Oncology services, Health services accessibility.

DOI: https://doi.org/10.47391/JPMA.9976

Introduction

Multidisciplinary care refers to active collaboration among various members of an integrated team of medical and allied healthcare professionals to develop and deliver optimal individual treatment plans for each patient after considering all relevant options collaboratively. The UK Department of Health defines MDT as a "group of people of different healthcare disciplines, which meet at a given time (whether physically in one place, or by video or tele-conferencing) to discuss a given patient, and who are each able to contribute independently to the diagnostic and treatment decisions about the patient."[1,2]

Due to the nature of cancer treatment, there are always a large number of stakeholders who take part in decision-making regarding the patient's treatment. Hence, there remains a massive risk of error due to lack of coordination or miscommunication; that is why MDT has been applauded as an important element, enabling high quality patient care. This has been proven by research and MDTs are used internationally, particularly in western Europe in order to improve the provision of cancer care and treatment.[3] The core composition of MDT depends on the diagnoses, but it normally includes surgeons, medical oncologists, radiation oncologists, radiologists, and pathologists.

Surveys and research have proven that MDTs not only have a positive effect on patient survival rate and at times, leading to revisions of cancer diagnoses and treatment plans, but also have improved practice patterns and waiting times, as well as reducing the diagnostic time manifolds.[2,4]

Above all, perhaps the most profound benefit of MDT is its role in increasing the satisfaction of patients with their treatment, their retention, referrals, ultimately leading to an increase in gross revenues from patient care.[2]

This concept of sharing knowledge related to a patient's treatment is not new amongst physicians, especially in the field of oncology. Although tumour boards have existed for the past 50 years, up till recently their main aim was educational, rather than to share knowledge.[1]

In the 1980s there was a tilt towards community-based cancer care, which led to the rise of tumour boards, made for the purpose of facilitating exchange of information between clinicians for the aim of improving quality of care.[5]

This was further encouraged due to large scale political and public uproar caused by the reports published in the late 1990s that stressed the wide variation of cancer care.[6]

Department of General Surgery, Services Hospital, Lahore, Pakistan.
Correspondence: Muhammad Nouman Rafique.
e-mail: m.noumanrafique@gmail.com
ORCID ID: 0000-0001-6745-251X

Submission completed: 04-06-2023 **1st Revision received:** 08-09-2023
Acceptance: 14-01-2026 **Last Revision received:** 13-01-2026

Patients/Methods and Results

All cancer patients (118) presenting at the Services Hospital, Lahore, from March 2021–October 2021, and whose cases were discussed in MDT meetings were studied.

All MDT team members including general surgeons, surgical oncologists, medical oncologists, histo-pathologists, and radiologists were taken on board and a liaison was established with the oncology department of another tertiary care hospital for participation in MDT and patient referral.

The cases of 118 patients of different specialties were discussed in MDTs and the impact of MDT discussions on patient management was analysed. (Figure 1)

This analysis demonstrated that MDT meetings had a substantial impact, directly influencing clinical decisions in over 70% of the cases as demonstrated in Figure 2.

MDT meetings lead to more accurate treatment recommendations, multidisciplinary evaluation, and adherence to clinical guidelines.[7] In addition to that, it also serves as an effective training opportunity for physicians and nurses and benefits the patients by enhanced referral and continuing care pathways.[8] It may also enhance communication, positively influence work environments, and the education of young physicians.[8] For patients it leads to enhanced levels of safety, coordination, and reliability.

Some serious barriers in implementing MDT include shortage of time, limited workforce, small number of cases, lack of supplementary investigations, insufficient pathology reports[3] and of course, funding which is a huge concern.[9] Other surveys have suggested hurdles such as lack of clarity of role and communication between healthcare professionals and between primary and secondary care. Additionally, a very important concern is marginalisation of nurses in decision making.[9]

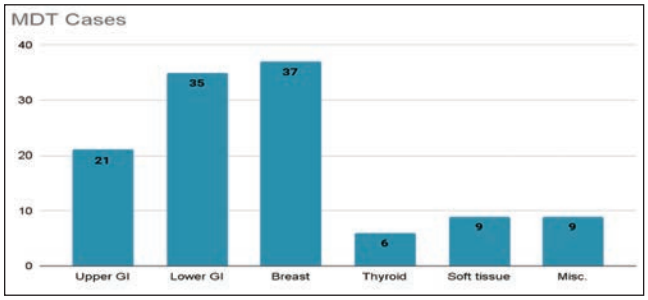

Figure-1: Distribution of Cases in MDT.

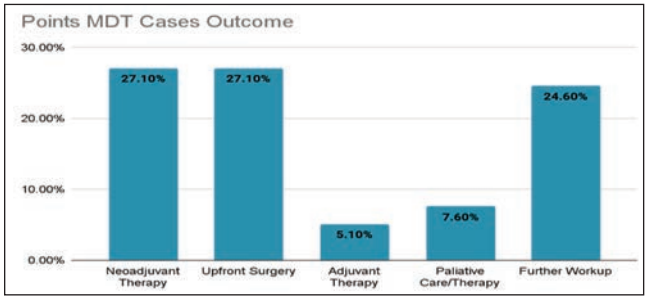

Figure-2: Recommendations in MDT meetings.

Another major barrier to the effective implementation of MDT is that patient-centred information is commonly ignored. The values and preferences of patients are not taken into consideration.[10]

Besides, lack of technology as the use of hospital wide PACS (Picture Archiving and Communication System) makes a hospital filmless and all radiological images are only visible on a digital format. Thus, the MDT meeting actually becomes a "showcase for PACS" for all physicians in the hospital. Services Hospital, Lahore, was not equipped with PACS which major roadblock in conducting an effective MDT.[3]

Conclusion

MDT approach strongly benefits patient care, and management. As reflected by the results, MDT discussions lead to concrete treatment recommendations in the majority of cases, including neoadjuvant or adjuvant therapy, surgical intervention, and palliative care planning. Several areas of improvement were identified as finalising pathology reports and adding more structured involvement of experts in the MDT meetings. Predominantly, the benefits of the MDT revolve around compiled clinical information, its review, evaluation, and adherence to clinical guidelines. Additionally, if supplementary therapy and pathology can be further increased, maximum benefits could be gained from the MDT approach.

Acknowledging, Dr M. Moaz-bin-Khalid (Post-graduate Resident Services Hospital. Lahore) and Dr Noor ul Mubeen (Consultant Surgical Oncology, Services Hospital, Lahore) for playing a key role in establishing MDT meeting in Services Hospital.

Disclaimer: None.

Conflict of interest: None .

Funding disclosure: None.

References

1. Berman HL. The tumour board: is it worth saving? Mil Med. 1975;140:529-31.
2. Bjegovich-Weidman M, Haid M, Kumar S, Huibregtse C, McDonald J, Krishnan S. Establishing a community-based lung cancer multidisciplinary clinic as part of a large integrated health care

system: Aurora Health Care. J Oncol Pract. 2010;6:e27-30. DOI: 10.1200/JOP.2010.000022

3. Rosell L, Alexandersson N, Hagberg O, Nilbert M. Benefits, barriers and opinions on multidisciplinary team meetings: a survey in Swedish cancer care. BMC Health Serv Res. 2018;18:249. DOI: 10.1186/s12913-018-2990-4
4. El Saghir NS, Charara RN, Kreidieh FY, Eaton V, Litvin K, Farhat RA, et al. Global practice and efficiency of multidisciplinary tumour boards: results of an American Society of Clinical Oncology international survey. J Glob Oncol. 2015;1:57-64. DOI: 10.1200/JGO.2015.000158
5. Gross GE. The role of the tumour board in a community hospital. CA Cancer J Clin. 1987;37:88-92. DOI: 10.3322/canjclin.37.2.88
6. Expert Advisory Group on Cancer. A policy framework for commissioning cancer services: a report by the Expert Advisory Group on Cancer to the chief medical officers of England and Wales: guidance for purchasers and providers of cancer services. London: Expert Advisory Group, 1995.
7. Fleissig A, Jenkins V, Catt S, Fallowfield L. Multidisciplinary teams in cancer care: are they effective in the UK? Lancet Oncol. 2006;7:935-43. DOI: 10.1016/S1470-2045(06)70860-5
8. Wilcoxon H, Luxford K, Saunders C, Peterson J, Zorbas H. National Breast and Ovarian Cancer Centre's multidisciplinary care audit steering committee. Multidisciplinary cancer care in Australia: a national audit highlights gaps in care and medico-legal risk for clinicians. Asia Pac J Clin Oncol. 2011;7:34-40. DOI: 10.1111/j.1743-7563.2010.01365.x
9. Restivo L, Apostolidis T, Bouhnik AD, Garciaz S, Aurran T, Julian-Reynier C. Patients' non-medical characteristics contribute to collective medical decision-making at multidisciplinary oncological team meetings. PLoS One. 2016;11:e0154969. DOI: 10.1371/journal.pone.0154969
10. Keating NL, Landrum MB, Lamont EB, et al. Tumor boards and the quality of cancer care. J Natl Cancer Inst. 2013;105:113-21. DOI: 10.1093/jnci/djs506

Author Contribution:
MNR, MBC & MWF: Concept, design, data acquisition, analysis, interpretation, drafting, revision, final approval and agreement to be accountable for all aspects of the work.